Canon

Wireless Settings Guide

[Camera ↔ Computer]

(For Mac OS X v10.4 Users)

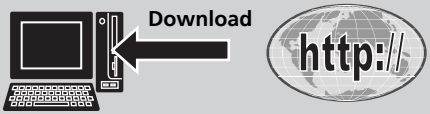
IMPORTANT!
You must install the software before connecting the camera to the computer.

Start by installing the software.

1. Software supplied with the camera



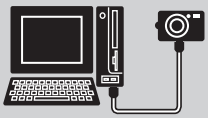
2. ImageBrowser Wireless Updater



3. Camera firmware



Register the target device with the camera.



Connect Wirelessly.



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CDP-E054-010

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Wireless Network Settings for the Computer and Camera

This chapter explains how to configure the wireless networking function to connect the camera to the computer over a wireless connection.

Procedures

Follow the procedures below to configure the wireless settings.

Preparation

Check Your Computer's Operating Environment

Confirm that your computer's operating system is Mac OS X v10.4 or later.

↓

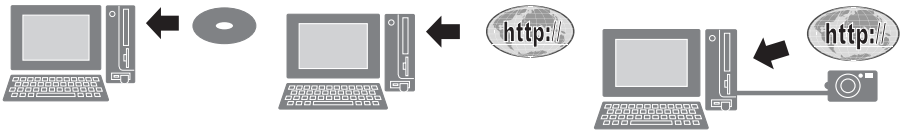
Check Your Wireless Connection Configuration

In order to ensure that the registration procedures for the connection proceed smoothly, confirm the network configuration for your computer and prepare it as necessary.

↓

Check If Required Software Is Installed

Confirm that the software required for a wireless connection has been installed.



Software supplied with the camera

Downloaded ImageBrowser Wireless Updater

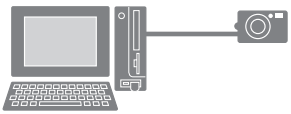
Downloaded camera firmware

↓

Registering the Target Device

Register the Target Device with the Camera

Connect the camera to the computer with the interface cable and register the target device (your computer) with the camera.



↓

Using the Wireless Networking Function

Use the Wireless Networking Function

Connect the camera and computer over the wireless connection and download camera images to the computer or print them. See *Actions Possible with the Camera Connected to a Computer* (p. 21) for the features that can be used over a wireless connection.



The procedures in the "Preparation" and "Registering the Target Device" sections are performed the first time you make a wireless connection. Thereafter, only the procedures in the "Using the Wireless Networking Function" section are required.

Preparation–Before You Use the Wireless Connection

This section explains the preparations to make before you use the wireless connection. Start by checking your computer's operating environment.

Checking Your Computer's Operating Environment

Operating System

The wireless feature can only used with Macintosh computers that come with Mac OS X v10.4 or later pre-installed. Please note it cannot be used with Macintosh computers equipped with Intel processors.

Environment Required for the Wireless Networking Function

Either of the following two configurations is required to use the wireless feature.

- The computer has built-in wireless networking (e.g. built-in AirPort networking, built-in wireless LAN card, such as an AirPort card)
- A wireless LAN router, such as an AirPort Base Station, is connected to the computer

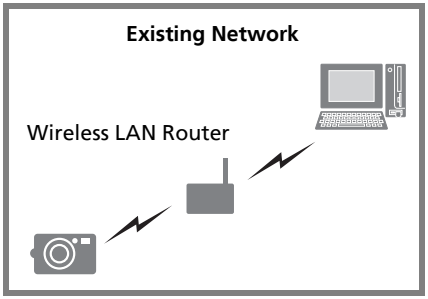
The firewall settings in your security software may prevent the camera and computer from connecting. See *Firewalls* (p. 23).

Checking Your Wireless Connection Configuration

The method for connecting the camera to the computer will vary according to your computer's wireless connection configuration. See the following diagram and confirm that your configuration uses connection method **A** or **B**.

A Wireless Network Already in Use

Add the camera to the wireless network in use.

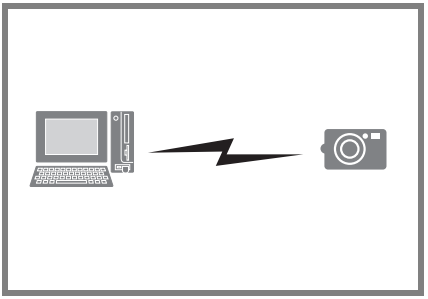


Check the settings for your wireless network and note them in the checklist (p. 6).

Connecting a camera and computer via an access point, such as a wireless LAN router, is called an **"infrastructure connection"**.

B 1:1 Direct Connection between Camera and Computer

Create a new network for the camera and computer.



Connecting a camera and computer directly in a 1:1 connection is called an **"ad hoc connection"**.

- A router is a device for connecting several computers or other equipment in a network (LAN). A router with built-in wireless networking is called a wireless LAN router.
- See your computer's user guide if you are uncertain about its operating system.

Checking Your Wireless Network Configuration (Configuration A Only)

If you are already using a wireless network, check the following settings and note them in the checklist.
If you are using an AirPort network, you can check each setting in the AirPort Admin Utility.

- If you are configuring a network managed by a system administrator, obtain the network settings information from the network administrator.
- An encryption key is an important asset. Manage it securely so that no one else can learn what it is.
- See the user guide for your wireless LAN router for details on checking the settings.

Checklist

• Network Name (SSID, ESSID) [ ]	Please enter the name assigned to the wireless network you are using.
• Network Authentication/Data Encryption (Encryption Method, Encryption Mode) ○ Invalid ○ WEP (Open) ○ WEP (Shared Key) ○ WPA-PSK-TKIP ○ WPA-PSK-AES	"Network Authentication/Data Encryption" is the encryption method for data during a wireless transmission. Enter a check mark beside the method used by your wireless network. If you are using an AirPort network, check the wireless utility settings and select the following. •[None] or [Do not use] ➔ [Disabled] •[128 Bit WEP] ➔ [WEP (Open)] •[40 Bit WEP] ➔ [WEP (Open)] •[WPA Personal] ➔ [WPA-PSK-TKIP] If a setting other than the above is selected, the camera will not be able to connect to the wireless network. Reset it with one of the options above.
• Encryption Key (Network Key) [ ]	The Encryption Key is the key used to encrypt data during a wireless transmission. Confirm the key used in your wireless network. (Be extremely careful in handling it since it is vital information.) If you are using an AirPort network, enter the password you set for the network as the Encryption Key.

• Key Index (Transmit Key) ○ 1 ○ 2 ○ 3 ○ 4	The Key Index is a key that is set when the Network Authentication/ Data Encryption setting is WEP. Up to four keys can be set for one access point. Please place a check mark beside the key index used by your wireless network. If you are using an AirPort network, select [1].

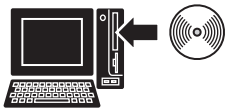
If you are using an AirPort network:
You can check the password by selecting your base station in the AirPort Admin Utility and clicking the [key] icon in the window.

Check If Required Software Is Installed

Before configuring the wireless settings, confirm that the following software has been installed.

Checking if the Software Supplied with the Camera Has Been Installed

Check to see if the software supplied with the camera has been installed. If it is not installed, use the supplied Canon Digital Camera Solution Disk and install it according to the procedures in *Using the Software on the Macintosh Platform—Preparations* (p. 47) in the *Software & Wireless Guide*.



Installing the ImageBrowser Wireless Updater

Download the ImageBrowser Wireless Updater from the same website you downloaded this guide from.



1 Confirm that ImageBrowser is installed on the computer.

ImageBrowser is normally installed if you have installed the software supplied with your camera. If it is not installed, install it according to the procedures in *Using the Software on the Macintosh Platform—Preparations* (p. 47) in the *Software & Wireless Guide*.

2 Double-click the downloaded file.
The file will decompress and the [IB56wOSX] icon will appear in the Finder.

3 Double-click the [IB56wOSX] icon, followed by the [Update Installer] icon.

4 Follow the onscreen instructions to install the software.
It will update ImageBrowser as well as install software for connecting via wireless networks.

Updating the Camera Firmware

Update the camera's firmware (software inside the camera) to support wireless networking with Mac OS X v10.4. Download the firmware upgrade from the same website you downloaded this guide from. Also refer to the website for instructions on updating the camera's firmware.



Uninstalling the Software

- If you should no longer require the wireless networking software, you can uninstall it by opening the [Applications] folder, followed by the [Canon Utilities] folder, [CameraWindow] folder and [Wireless] folder, and double-clicking the [UnInstall] folder within.
- To uninstall the software supplied with the camera, drag and drop the folder for each program into the trash and empty the trash.

Registering the Target Device with the Camera

Attach the camera to the computer using the interface cable and register the target device (computer to be connected wirelessly) with the camera. Register the target device using the Camera Wireless Setup program (a wireless configuration utility). This step is only required the first time you register a target device.

Before you register the target device, update the camera firmware (software inside the camera) to the latest version. Download the firmware upgrade from the same website you downloaded this guide from. Also refer to the website for instructions on updating the camera's firmware.

- The camera cannot connect wirelessly to computers that have not been registered as target devices.
- The camera can register up to 7 devices.

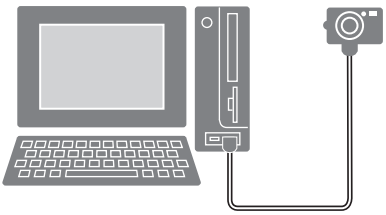
A Wireless Network Already in Use

B 1:1 Direct Connection between Camera and Computer

For Step 9 onward go to **A** *Wireless Network Already in Use* (p. 12) or **B** *1:1 Direct Connection between Camera and Computer* (p. 14).

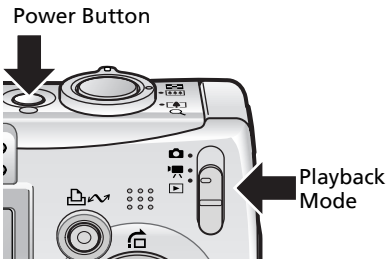
1 **A** If your wireless network is already in use, confirm that the computer and router are correctly connected and that the router's wireless settings are correctly configured.
B If there is a 1:1 direct connection between the camera and computer, confirm that the computer's wireless networking function is working.

2 Attach the supplied interface cable to the computer's USB port and the camera's DIGITAL terminal.



3 Turn on the camera and set it to the playback mode.

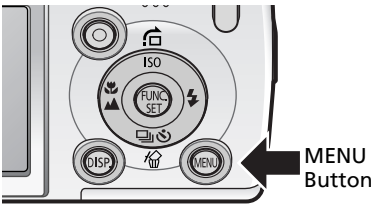
The camera's (Print/Share) button will light blue. It will not light up if the memory card in the camera does not contain any images.



The Camera Control Window will appear on the computer screen. Leave this window as is without closing it.



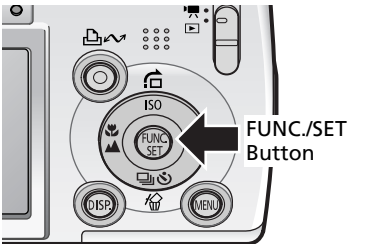
4 Press the camera's **MENU** button.



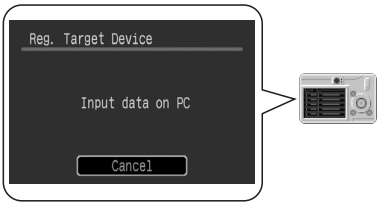
5 Select the [(Wireless)] menu in the camera's LCD monitor and choose [Reg. Target Device].



6 Press the **FUNC./SET** button.



"Input data on PC" will appear on the camera's LCD monitor.



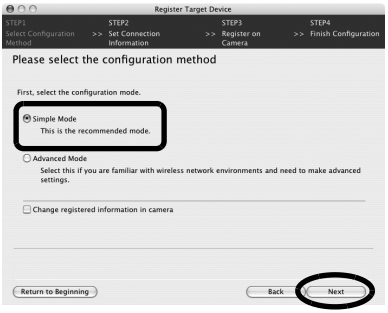
The Camera Wireless Setup utility, as shown to the right, will start up. Set the wireless settings in this window.



7 Click [Next].

8 Select [Simple Mode] and click [Next].

We recommend you use the Simple Mode for most purposes.



- We recommend you use the [Advanced Mode] if the following conditions apply to your computer's wireless configuration.
  - You are configuring an ad hoc network.
  - You are performing the settings within a network with a system administrator.
  - The computer and wireless LAN router are connected by a cable.
  - A fixed IP address is assigned. (IP address: an identifying number assigned to a computer or other device on a network)
  - Wireless LAN router is not equipped with a DHCP server function. (DHCP server function: short for dynamic host configuration protocol server function, which assigns dynamic IP addresses to devices in a network)
- You can change the registered information in the camera if you place a check mark beside [Change registered information in camera] and click [Next].

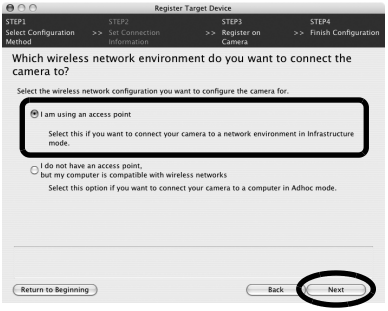
If you are already using a wireless network, please proceed to Step 9 in the **A** *Wireless Network Already In Use* section (p. 12).
If you are using a 1:1 direct connection between the camera and computer, skip to Step 9 in the **B** *1:1 Direct Connection between Camera and Computer* section (p. 14).

A Wireless Network Already in Use

Perform steps 1-8 (pp. 9-11) before proceeding below.

9 Select [I am using an access point] and click [Next].

This window will not appear if the wireless configuration information is automatically detected. Proceed to the next step.



If you do not understand the terminology in the window, place the mouse cursor over it. A brief explanation will display at the bottom of the window.

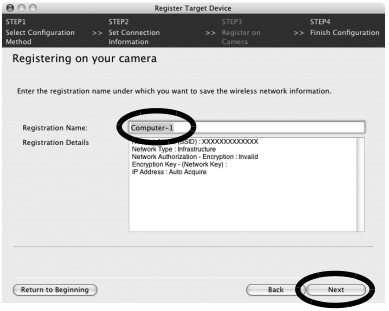
10 Enter the settings information from the checklist (p. 6) and click [Next].

Some of the wireless configuration information may already be entered if it was automatically detected. Make sure the information is the same as entered in the checklist, and enter the information required for the remaining settings categories.



11 Confirm the displayed information and click [Next].

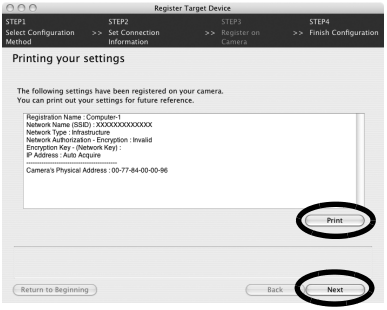
The registration name you enter here will display in the camera's [Target Device] category.



If the "Insufficient space in camera" message appears, delete target devices that are not needed and proceed to the next step.

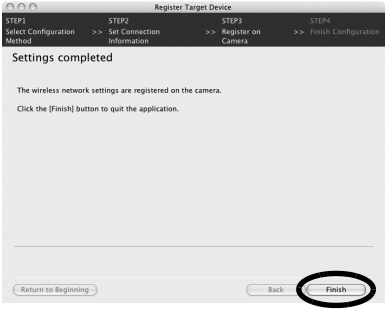
12 After confirming the displayed settings, click [Print] to print out the configuration contents.

This information will be necessary if you cannot make a connection or later change the settings. Store this information in a secure place because it is important information about your computer.



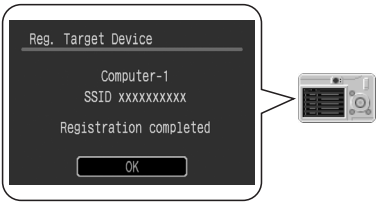
13 After the printing finishes, click [Next].

14 Click [Finish].



15 When [Registration completed] appears on the LCD monitor, press the **FUNC./SET** button.

This registers the network configuration on the camera.



16 Press the camera's MENU.

The camera will return to the playback mode.

17 Turn off the camera.

The Camera Control Window on the computer screen will close.

18 Detach the interface cable and connect wirelessly.

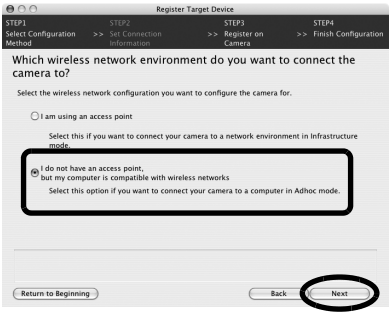
Please use the procedures in *Connecting* to test the correction operation of the wireless connection (p. 17).

B 1:1 Direct Connection between Camera and Computer

Perform steps 1-8 (pp. 9-11) before proceeding below.

9 **Select [I do not have an access point, but my computer is compatible with wireless networks] and click [Next].**

This window will not appear if the wireless configuration information is automatically detected. Proceed to the next step.



If you do not understand the terminology in the window, place the mouse cursor over it. A brief explanation will display at the bottom of the window.

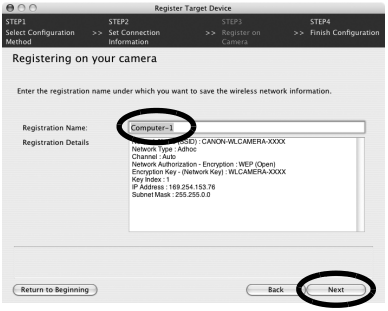
10 **Confirm the configuration settings and click [Next].**

The configuration settings will automatically take effect and appear in the window. These settings generally do not require adjusting.



11 **Confirm the displayed information and click [Next].**

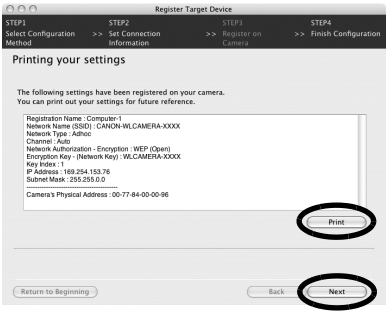
The registration name you entered here will display in the camera's [Target Device] category.



If the "Insufficient space in camera" message appears, delete target devices that are not needed and proceed to the next step.

12 After confirming the displayed settings, click [Print] to print out the configuration contents.

This information will be necessary if you cannot make a connection or later change the settings. Store this information in a secure place because it is important information about your computer.



13 After the printing finishes, click [Next].

14 Change the computer settings to match the displayed settings content.

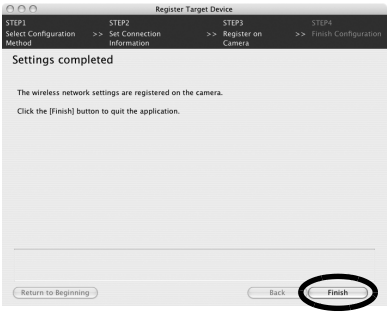
Read the user guide for your computer for details on changing the settings.
See the checklist (p. 6) for an explanation of the settings.

This screen will not display if the wireless settings information is automatically detected. Proceed to Step 16.



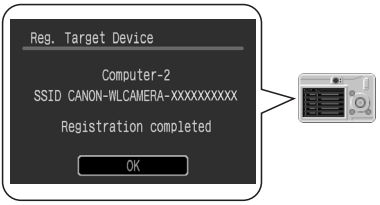
15 Click [OK].

16 Click [Finish].



17 When [Registration completed] appears on the LCD monitor, press the **FUNC./SET** button.

This registers the network configuration on the camera.



18 Press the camera's **MENU** button.

The camera will return to the playback mode.

19 Turn off the camera.

The Camera Control Window on the computer screen will close.

20 Detach the interface cable and connect wirelessly.

Please use the procedures in *Connecting* to test the correction operation of the wireless connection (p. 17).

Connecting

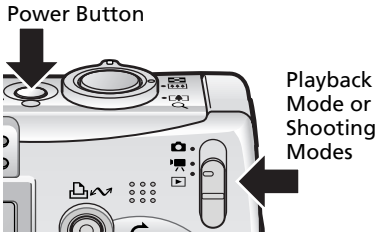
Connect to the computer using the camera controls.
You will not require an interface cable because you are connecting wirelessly.
Connect after you have registered the target device (computer) according to the procedures in *Registering the Target Device with the Camera* (p. 9).

- The wireless networking function can be operated up to approximately 30 meters away with a direct line of sight to the target device. However, this distance will depend upon the operating conditions.
- You cannot have more than one camera connected at a time.
- You cannot connect to multiple target devices at once. If you are already connected to one device and attempt to connect another, the current connection will close and the camera will begin to connect to the new target device.
- Always use the camera to disconnect from a wireless connection (p. 19).

1 Turn on the camera and set it to the playback or shooting modes.

Playback Mode
After connecting, you can download camera images to the computer and print them on a printer.

Shooting Modes
After connecting, you can transmit a recorded image immediately to the computer.

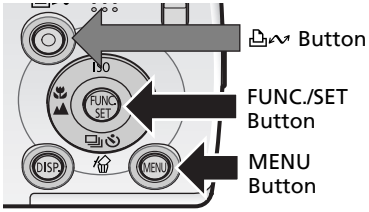


See *Actions Possible with the Camera Connected to a Computer* (p. 21) for details.

- The movie mode cannot be used over a wireless connection.
- You can switch between the playback and shooting modes during a wireless connection.

2 Press the 凸↝ button.
A menu for selecting the target device will appear on the LCD monitor.

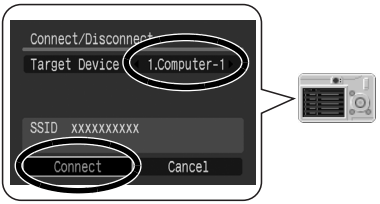
The 凸↝ button will light blue.



Alternatively, you can display the menu for selecting the target device by pressing the MENU button, selecting the [⚡ (Wireless)] menu followed by the [Connect/Disconnect] option, and pressing the FUNC./SET button.

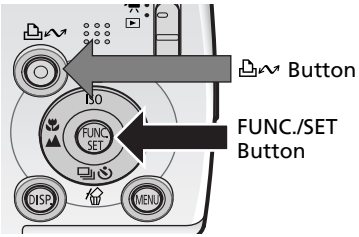
3 After you have selected a target device, select [Connect].

The name registered for the target device in Step 11 (p. 12, 14) in *Registering the Target Device with the Camera* will appear in the [Target Device] category.

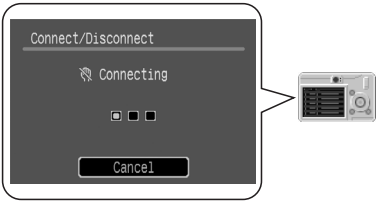


4 Press the 凸∿ button (or **FUNC./SET** button).

The wireless lamp and 凸∿ button will blink while the two devices connect.



The LCD monitor will display an indicator that shows the connection status.



Wait until the wireless lamp stops blinking and lights steadily and an antenna showing the signal strength (0-3 bars) appears on the LCD monitor.



In Playback Mode

- The connection may take some time to establish if there are many images in the camera.
- Do not perform the following procedures on the computer during a wireless connection:
  * Shut down, log out or restart the computer system
  * Close the Camera Control Window

  Before attempting any of the above procedures, first use the camera to disconnect from the wireless connection (p. 19).

- Unless you change the target device, you can connect later simply by pressing the 凸∿ button in Step 2 for one second.
- If an error message displays on the camera's LCD monitor, see *Connection Difficulty* in the *Software & Wireless Guide* (p. 100).

Disconnecting

Disconnect the camera from the computer using camera commands.

1 Set the camera to the playback or shooting modes.

2 Press the **MENU** button.

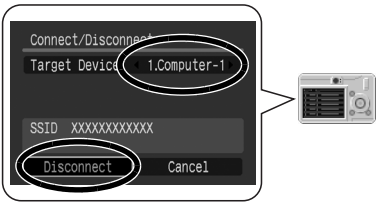
3 In the [(Wireless)] menu, select [Connect/Disconnect] and press the **FUNC./SET** button.



4 After you select the target device, select [Disconnect].

5 Press the **FUNC./SET** button.
This will disconnect the camera and computer.

The wireless lamp will turn off when the camera is disconnected from the computer.



Deleting a Target Device

Delete a target device if its registration is no longer required or you wish to register a new device but have already reached the maximum number of registrations.

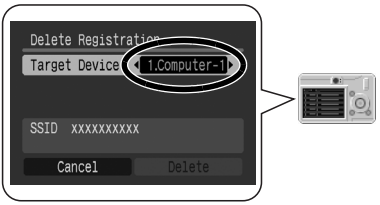
1 Set the camera to the playback or shooting modes.

2 Press the **MENU** button.

3 In the [(Wireless)] menu, select [Delete Registration] and press the **FUNC./SET** button.

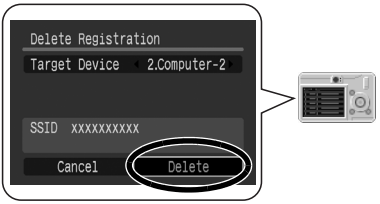


4 Select the target device you would like to delete.



5 Select [Delete] and press the **FUNC./SET** button.

The selected device will be deleted and the name of the next device will display.



6 Press the MENU button.

Using the Wireless Networking Function

This section explains how to use the wireless networking function to download camera images to a computer and print them. Make sure that you have already configured the settings described in *Wireless Network Settings for the Computer and Camera*.

Actions Possible with the Camera Connected to a Computer

The following describes the actions possible when the camera is connected over a wireless network to a computer or when it is connected via an interface cable (wired connection). See the *Software & Wireless Guide* for details. The screen contents and procedures may differ slightly according to the system environment you are using.

Camera Mode	Action	Wireless Connection	Wired Connection	Reference Page*
Playback Mode	Download camera images to the computer using computer commands.	○	○	p. 49
	Download camera images to the computer using camera commands (direct transfer).	○	○	p. 90
	Send images to the computer and print them out on a connected printer using camera commands (printing via a computer).	○	×	p. 92
	Shoot from the computer (remote shooting).	○	×	p. 95
	Upload images from the computer to the camera.	○	○	p. 63
	Add My Camera files to the camera.	○	○	p. 69
Shooting Mode	Save images automatically to the computer while shooting (auto transfer).	○	×	p. 98

*For *Software & Wireless Guide*



Do not attempt to perform other actions in the Camera Control Window on the computer while images are being transferred between the camera and computer over the wireless network.

Print settings for printing from the camera via a computer, can only be set during a wireless connection. Settings cannot be made when connecting via the interface cable (wired connection).

Wireless Connection Troubleshooting

Before Contacting Us

First read *Wireless Connection Troubleshooting* in the *Software & Wireless Guide* (p. 100). For information about firewall settings, see *Firewalls* (next page).

If you experience a problem, please follow the suggestions below. If these do not resolve your problem, please contact us.

Check Your Computer/Wireless LAN Router

A connection between the camera and computer will not work if the computer and wireless LAN router do not communicate correctly.

→ Confirm that the computer and wireless LAN router are operating correctly and that the computer's wireless networking function is enabled. See the user guide for your computer or wireless LAN router for confirmation instructions.

↓

Check Your Firewall

Some firewall settings may prevent a connection between the camera and a computer.

→ Check your firewall settings. See *Firewalls* (p. 23)

↓

Check the Software

Unless the following software is correctly installed, the camera and computer may not connect.

- Programs supplied with the camera
- ImageBrowser Wireless Updater
- Camera firmware upgrade

→ Check to see if the required software is correctly installed.
See *Check If Required Software Is Installed* (p. 7)

↓ If none of the above solve your problem:

For Problems Other Than Wireless Networking
See *Troubleshooting* (p. 114) in the *Software & Wireless Guide*.

Customer Support Center
See the customer contact list included with your camera.

Firewalls

Firewalls protect computers from security threats, such as computer viruses and unauthorized external access. However, some firewall settings may interfere with the connection between the camera and computer.
If you cannot establish a wireless connection between the camera and computer, check if the following settings have been changed.

Log into the computer as the administrator and then configure the firewall settings.

Stealth Mode Disabled

If you enable stealth mode, the computer will not be able to respond to the camera and the camera will not be able to detect the target computer.

Bonjour Enabled

Bonjour is used when the wireless connection program detects the camera.

If you are using a firewall provided by security software, please refer to the user guide for that software to confirm the settings above.